

# Bowman

## CONSULTING

August 15, 2014

Frederick County  
Division of Permitting and Development Review  
Attn: Mr. Mike Wilkins  
30 North Market Street  
Frederick, MD 21701

Re: Tallyn Ridge – Combined Preliminary (AKA Glad Hill Property)  
File #S1166, Project Number 14144  
BCG Project # 5747-01-002  
FRO Staff Level Review

Dear Mike,

We are writing you in order to provide additional information to you regarding the two (2) specimen trees we are requesting Frederick County Planning Commission modification for the removal of Trees numbered 1 and 41. We visited the site on July 1, 2014 to obtain further information on the condition of these trees to provide you for your reference. We have attached detailed photographic documentation on the problems associated with these trees, showing that they are clearly in decline. It is our professional opinion that these trees are now in fair to poor condition. These issues may not have been as apparent during the winter months and during the initial survey; and we are respectfully requesting your concurrence.

Issues associated with Specimen Tree 1- Refer to attached Photo Exhibit (Photo #s 1 – 25)

- Invasive vine cover – Can restrict light, add additional weight making the tree more susceptible to blow over during high rain, wind or snow events, strangle/choke and eventually kill the tree.
- Multiple cankers - Are among the most destructive problems of woody plants. Branches and portions of a trunk can die when cankers are present. Most cankers are caused by fungi and often create openings for other fungi, bacteria and insects which can speed up a tree's decline and health.
- Dead wood throughout canopy - Poses potential hazard to life and/or property on proposed adjacent community when located in the open or along forest edge.
- Moss and deterioration at base - Deterioration in combination with moss at the base of tree could be a sign of root damage, which could increase the chance for tree failure. Wood rotting fungi destroy wood fiber in the root system, greatly reducing strength and resistance to wind throw.
- Moss, lichens and fungi throughout limbs and trunk - Fungi, in most cases, are involved in tree diseases that result in the tree becoming a hazard. A wound occurs, fungus enters the wound and causes a discoloration of the wood, or it begins to rot roots directly with no

wound required. Enzymes produced by the fungus decay the wood, weakening wood fibers. Wood on the internal portions of the trunk or limbs lose strength. Or, the root structure is so weakened that the physical support is greatly reduced. Limbs and small twigs die. The fungus begins to reproduce by forming a mushroom, conk, or shelf-like structure directly on the limbs, trunk, butt, root flares or on roots at some distance from the base of the tree. Larger limbs die and may fall. In the case of root rot, the entire tree may topple in a wind storm.

- Loose/Dead Bark - Root decay is often associated with loose or dead bark on the root collar.
- Active insect infestation – Presence of carpenter ant colonies indicate a presence of dead wood and decay.
- Damage from barbed wire and bolts - Trunk wounds provide entry for wood-rotting fungi that reduce the volume of sound wood and increase the probability of stem breakage.
- Multiple seams - Potential indicator of tree decay. Vertical cracks can be caused by a variety of reasons, may be associated with decay and will eventually fail. They suggest an internal defect, usually an old wound. The wound creates a weakened place in the wood that is prone to cracking and splitting, especially when the trunk is under stress by winds or abrupt changes in temperature. Horizontal cracks indicate that the tree is already failing and should be removed as soon as possible.

Issues associated with Specimen Tree 41- Refer to attached Photo Exhibit (Photo #s 26 – 36)

- Invasive vine cover – Can restrict light, add additional weight making the tree more susceptible to blow over during high rain, wind or snow events, strangle/choke and eventually kill the tree.
- Multiple cankers - Are among the most destructive problems of woody plants. Branches and portions of a trunk can die when cankers are present. Most cankers are caused by fungi and often create openings for other fungi, bacteria and insects which can speed up a tree's decline and health.
- Dead wood throughout canopy - Poses potential hazard to life and/or property on proposed adjacent community when located in the open or along forest edge.
- Moss and deterioration at base - Deterioration in combination with moss at the base of tree could be a sign of root damage, which could increase the chance for tree failure. Wood rotting fungi destroy wood fiber in the root system, greatly reducing strength and resistance to wind throw.
- Moss, lichens and fungi throughout limbs and trunk – Fungi, in most cases, are involved in tree diseases that result in the tree becoming a hazard. A wound occurs, fungus enters the wound and causes a discoloration of the wood, or it begins to rot roots directly with no wound required. Enzymes produced by the fungus decay the wood, weakening wood

fibers. Wood on the internal portions of the trunk or limbs lose strength. Or, the root structure is so weakened that the physical support is greatly reduced. Limbs and small twigs die. The fungus begins to reproduce by forming a mushroom, conk, or shelf-like structure directly on the limbs, trunk, butt, root flares or on roots at some distance from the base of the tree. Larger limbs die and may fall. In the case of root rot, the entire tree may topple in a wind storm. Moss and lichens, when present with other symptoms of decline, often indicate excess moisture within the root zone. The presence of the moss and lichens on the roots and within the root collar also create

- Multiple burls - Burls, galls, and tumors may be caused by bacteria, fungi, insects, or environmental stress and could serve as secondary infection avenues for insects and disease. Burl wood in vulnerable spots or with off-shooting growth can become so large and heavy that they create additional stress on a tree and can cause the tree to break apart.
- V-shaped fork - Many times the union where the stems connect are weak potentially dangerous "V" shaped instead of stronger "U" shapes. This could allow splitting down the middle.
- Irregular lean habit - The greater the lean, the greater the probability of failure during wind gusts or snow loads.
- Multiple seams - Potential indicator of tree decay. Vertical cracks can be caused by a variety of reasons, may be associated with decay and will eventually fail. They suggest an internal defect, usually an old wound. The wound creates a weakened place in the wood that is prone to cracking and splitting, especially when the trunk is under stress by winds or abrupt changes in temperature. Horizontal cracks indicate that the tree is already failing and should be removed as soon as possible.

During this visit, we also observed three (3) specimen trees that have seriously declined since the first survey was conducted in April 2013. For your reference, we have included photographic documentation regarding trees 17 (good), 18 (fair), and 19 (fair). We will be updating the FCP as necessary, to reflect current conditions of these trees.

Issues associated with Specimen Trees 17, 18, and 19- Refer to attached Photo Exhibit (Photo #s 37 – 41)

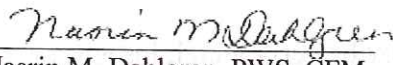
- Tree 17 has fallen
- Tree 18 is in serious decline
  - Half dead canopy
  - Cankers at base
  - Presence of fungus
- Tree 19 is dead

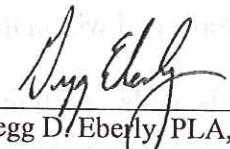
We believe that the foregoing information, as well as the photographic documentation clearly demonstrate that a staff-level FRO approval is appropriate in this case. We are respectfully requesting your concurrence.

If you have any questions or require additional information for your review of this request, please contact us.

Sincerely,

Bowman Consulting Group

  
Nasrin M. Dahlgren, PWS, CFM  
MD DNR FCA Qualified Professional

  
Gregg D. Eberly, PLA, ISA

Attachments: Photograph Exhibit

cc: Bob Spalding, MS Gladhill Farm, LLC  
David Severn, Severn, O'Connor & Kresslein, P.A.



**Photo #1:** Specimen Tree #1. 35" White Oak –Invasive vine cover.



Photo #2: Specimen Tree #1. 35" White Oak – Invasive vine cover.



Photo #3: Specimen Tree #1. 35" White Oak – Multiple cankers.



Photo #4: Specimen Tree #1. 35" White Oak – Multiple cankers.



**Photo #5:** Specimen Tree #1. 35" White Oak – Dead wood throughout canopy.



Photo #6: Specimen Tree #1. 35" White Oak – Dead wood throughout canopy.



Photo #6: Specimen Tree #1. 35" White Oak – Dead wood throughout canopy.



Photo #7: Specimen Tree #1. 35" White Oak – Moss and deterioration at base.



**Photo #8:** Specimen Tree #1. 35" White Oak – Moss and deterioration at base.



Photo #9: Specimen Tree #1. 35" White Oak – Moss and deterioration at base.



Photo #10: Specimen Tree #1. 35" White Oak – Moss and deterioration at base.



**Photo #11:** Specimen Tree #1. 35" White Oak – Moss, lichens, and fungi throughout limbs and trunk.



**Photo #12:** Specimen Tree #1. 35" White Oak – Moss, lichens, and fungi throughout limbs and trunk.



**Photo #13:** Specimen Tree #1. 35" White Oak – Moss, lichens, and fungi throughout limbs and trunk.



**Photo #14:** Specimen Tree #1. 35" White Oak – Moss, lichens, and fungi throughout limbs and trunk.



**Photo #15:** Specimen Tree #1. 35" White Oak – Moss, lichens, and fungi throughout limbs and trunk.



**Photo #16:** Specimen Tree #1. 35" White Oak – Moss, lichens, and fungi throughout limbs and trunk.



**Photo #17:** Specimen Tree #1. 35" White Oak – Loose/Dead bark.



**Photo #18:** Specimen Tree #1. 35" White Oak – Loose/Dead bark.



**Photo #19:** Specimen Tree #1. 35" White Oak – Active insect infestation.



**Photo #20:** Specimen Tree #1. 35" White Oak – Active insect infestation.



**Photo #21:** Specimen Tree #1. 35" White Oak – Active insect infestation.



Photo #22: Specimen Tree #1. 35" White Oak – Damage from barbed wire and bolts.



Photo #22: Specimen Tree #1. 35" White Oak – Damage from barbed wire and bolts.



Photo #24: Specimen Tree #1. 35" White Oak – Damage from barbed wire and bolts.



Photo #25: Specimen Tree #1. 35" White Oak – Multiple seams.



**Photo #26:** Specimen Tree #41. 30" American Elm – Invasive vine cover.



Photo #27: Specimen Tree #41. 30" American Elm – Dead wood throughout canopy.



Photo #27: Specimen Tree #41. 30" American Elm – Moss and deterioration at base.



Photo #28: Specimen Tree #41. 30" American Elm – Moss, lichens and fungi throughout limbs and trunk.



Photo #29: Specimen Tree #41. 30" American Elm – Moss, lichens, and fungi throughout limbs and trunk.



**Photo #30:** Specimen Tree #41. 30" American Elm – Moss, lichens, and fungi throughout limbs and trunk.



Photo #31: Specimen Tree #41. 30" American Elm – Multiple burls.



Photo #32: Specimen Tree #41. 30" American Elm – Multiple burls.



**Photo #33:** Specimen Tree #41. 30" American Elm – V-shaped fork.

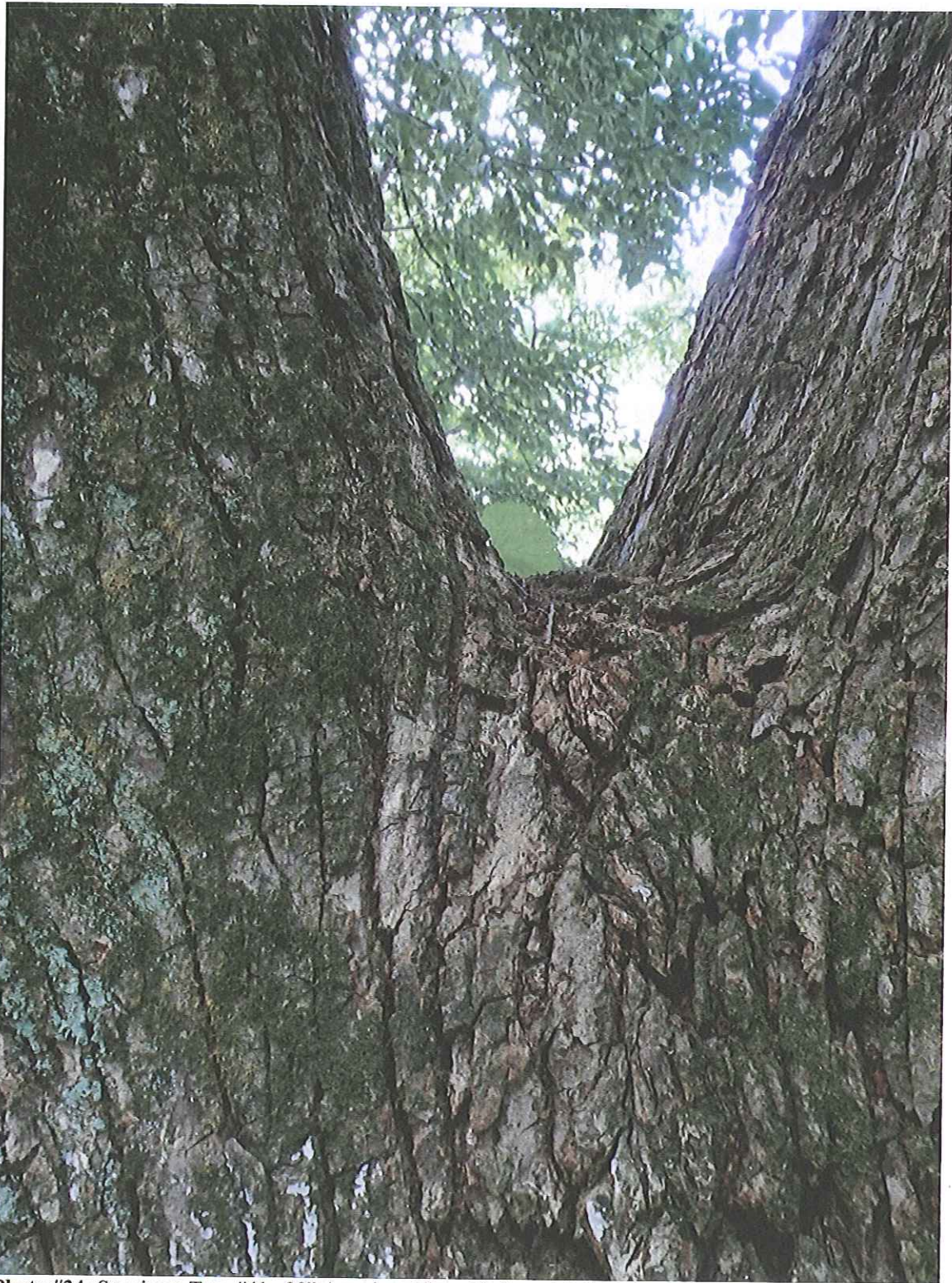


Photo #34: Specimen Tree #41. 30" American Elm – V-shaped fork.



Photo #35: Specimen Tree #41. 30" American Elm – Irregular lean habit.



Photo #36: Specimen Tree #41. 30" American Elm – Multiple seams.



**Photo #37:** Overall view of Specimen Trees 17, 18, and 19



**Photo #37:** Specimen Tree #17. 30" Hackberry (previously identified as good).



**Photo #38:** Specimen Tree #18. 30" Northern Red Oak (previously identified as fair).



**Photo #39:** Specimen Tree #18. 30" Northern Red Oak (previously identified as fair).



**Photo #40:** Specimen Tree #19. 42" Northern Red Oak (previously identified as fair).



**Photo #41:** Specimen Tree #19. 42" Northern Red Oak (previously identified as fair).